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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/689,329	10/20/2003	Kaori Iwamoto	DW0080USNA	4189

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EXAMINER

HU, HENRY S

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 12/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/689,329

Applicant(s)

IWAMOTO ET AL.

Examiner

Henry S. Hu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Amendment of October 26, 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 8-19-2004
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

1. Applicants' IDS filed on August 19, 2004 was received. This Office Action is in response to Amendment filed on October 26, 2004. **No claim was amended, and no new claim was added.**

As pointed out by the Applicants, the specification objection (a) - (c) is a typographical error by the examiner. In view of above amendment, the examiner thereby withdraws the specification objections. The examiner **accepts Applicants' three drawing sheets with Figures 1, 2A, 2B, 3A, 3B, 4A and 4B** filed on October 23, 2003 with this application. **Claims 1-8 are now pending.** An action follows.

Response to Argument

2. Applicant's argument filed on August 11, 2004 has been fully considered but they are not persuasive. The focal arguments related to the patentability will be addressed as follows:

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
 2. Ascertaining the differences between the prior art and the claims at issue.
 3. Resolving the level of ordinary skill in the pertinent art.
 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
4. The limitation of parent **Claim 1** of the present invention relates to an elastomer part for exposure to reactive plasma, said part having a magnetic flux density of at least 10 gauss at its surface. Parent **Claim 7** relates to the same function of Claim 1 but with an elastomer in a slit valve door, while other parent **Claim 8** relates to the same function of Claim 1 but with an elastomer in a pipe flange. See other limitations of dependent **Claims 2-6**.
5. Claims 1-7 are rejected under 35 U.S.C. 103(a) as obvious over Hill et al. (US 5,990,218) in view of Yoden (US 5,062,904) for the reasons set forth in **paragraphs 5-7 of office action dated 8-11-2004 as well as the discussion below**.
6. Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Hill et al. (US 5,990,218) in view of Yoden (US 5,062,904) as applied to Claims 1-7, and further in

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view of Salmasi et al. (US 6,237,424 B1) for the reasons set forth in **paragraphs 8-9 of office action dated 8-11-2004 as well as the discussion below.**

7. **Applicants:** Applicant has claimed an unexpected way of obtaining an elastomer part having the claimed magnetic flux density at its surface for exposure to reactive plasma. With respect to 103 rejections for Claims 1-7, the Applicants allege that primary reference **Hill** does not disclose exposure of the magnetic compositions to reactive plasma, while secondary reference **Yoden** does not disclose a means for protecting the surfaces of elastomeric polymer from plasma induced degradation (see pages 2-3 of Remarks). The Applicants further allege that the above-mentioned prior art, in combination or alone, fails to teach or suggest such a specific function on elastomer since a motivation to link Hill and Yoden is lacking.

With respect to other 103 rejection for Claim 8, the Applicants allege that the tertiary reference **Salmasi** only mentions "plasma" as a means to apply an EMC/RFI to the plastic meter body and cover, but not to the claimed pipe flange (see page 3 of Remarks).

8. **Examiner:** As discussed in the earlier office action, Hill reference has already disclosed a polymeric magnet composition having ultraviolet light and heat resistance but is silent of using a magnet flux density of higher than 10 gauss for resisting reactive plasma. Yoden reference has disclosed the modification of ferromagnetic powder by treatment of oxygen plasma, it is noted that such a surface-modified/oxidized powder is thereby becoming plasma resistant. It should be noted that Yoden has also taught using a specific ferromagnetic metal powders

having a saturation magnetic flux density at 3000 gauss. Any part or article made from the coating composition comprising such a modified ferromagnetic powder to be mixed with a binder resin would anticipate the claimed limitation of Claim 1.

It is noted that parent Claims 1 and 7-8 are **not claimed at all** with how much or how long on the degree for plasma resistance. With respect to parent **Claim 8**, it is noted that the use on "pipe flange" may be functional equivalent to the Salmasi's disclosure on the use as "plastic meter body and cover", and its plasma resistance may be an inherent property. The **general** limitation as "for exposure to reactive plasma", **without claiming both the degree and a specified plasma, does not carry enough weight of patentability** and are thereby not persuasive.

9. The examiner recognizes that the Applicants have provided several working examples on pages 7-10 for exposure to **different types of plasma such as Argon/SF₆, Helium/O₂ and Argon/O₂** without significant surface damage. However, the Applicants have failed to specify the type of plasma as well as failed to include how much the weight loss and how long on plasma exposure on parent Claims 1 and 7-8.

Therefore, Claims 1-8 are rejected since they still carry the same scope of original limitations.

Conclusion

10. With respect to **Claims 1-8**, all directly relate to original Claims 1-8 since **no claim was amended, and no new claim was added**. Therefore, the same rational recited in the rejection of original Claims 1-8 can be applied to reject Claims 1-8.

11. **THIS ACTION IS MADE FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

12. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Henry S. Hu whose telephone number is **(571) 272-1103**. The examiner can be reached on Monday through Friday from 9:00 AM –5:00 PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached on (571) 272-1114. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306 for all regular communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Henry S. Hu

December 1, 2004

TATYANA ZALUKAEVA
PRIMARY EXAMINER

